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Clarence A. Green
Perman & Green, LLP
425 Post Road
Fairfield, CT 06430

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EXAMINER

SEFCHECK, GREGORY B

ART UNIT	PAPER NUMBER
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2619

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

- Applicant's Amendment filed 1/11/2008 is acknowledged
- Claims 18 and 24 have been amended.
- The previous objection to claim 18 and rejection of claim 24 under 35 USC 101 are withdrawn in light of the present amendments.
- Claims 4, 9, 14, 20, and 23 have been previously cancelled.
- Claims 1-3, 5-8, 10-13, 15-19, 21, 22, and 24 remain pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 6-8, 10-13, 16-19, 21-22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frid et al. (US006560239B1), hereafter Frid.

- In regards to Claim 1, 2, 8, 10, 11, 16, 18, 21, 22, and 24

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched (second) connection to the wireless terminal (Title; Abstract; Col. 4, lines 33-52; claim 1,11,18,24 – first connection is a packet connection and second connection is a circuit-

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switched connection; claim 10,16,22 – terminal is a wireless terminal and network is a mobile communication network).

Referring to Fig. 3, Frid shows establishing a packet data connection between a terminal and a packet-switched network, including negotiating a communications protocol with a peer, such as a server associated with an Internet Service Provider or ISP (302-310; Col. 5, lines 20-30; claim 1,11,18,24 – circuit/code section configured to establish data connection between application server of network and terminal using packet data service as bearer).

Frid further shows establishing a circuit-switched connection between the terminal and the network (Fig. 3, 326; claim 1,11,18,24 – circuit/code section configured to establish circuit-switched connection between network and terminal).

Frid shows that the terminal sends a message (318) for interrupting the packet data connection while maintaining the connection protocol with the server (320-322) before establishing the voice call (324-326; claim 1,11,18,24 – circuit/code section configured to interrupt the packet data service for the time of the circuit-switched connection; claim 1,11,18,24 – circuit/code section configured to set up a message for maintaining the packet data connection in connection with establishing/setting up of the circuit-switched connection; claim 1,11,18,24 – circuit/code section configured to automatically start the setting up of the message maintaining the packet data connection; claim 1,11,18,24 – circuit/code section configured to transmit message before establishing circuit-switched connection; claim 2 – message for maintaining the packet data connection is generated in the terminal and transmitted from the terminal to

the server of the network; claim 8,21 – maintenance message is supplemented with a “no operation” command).

Frid does not explicitly disclose the message includes a command to reset an application level time-out counter in the server.

However, Frid discloses that any applications associated with the packet data connection that have not timed-out may be re-established upon termination of the circuit-switched call and reactivation of the packet data connection (Abstract; Col. 3, lines 5-7; Col. 7, lines 15-18; Col. 8, lines 30-55; Col. 9, lines 30-41). Therefore, the setting (resetting) of a timer or counter associated with the applications of the interrupted/maintained packet data connection would monitor for the disclosed time-out.

It would have been obvious to one of ordinary skill in the art at the time of the invention to explicitly include a command to reset a time-out counter for purposes of re-establishing applications associated with the packet data connection in the maintenance message of Frid. One would be motivated to make such a modification because applications of packet data connections that are interrupted and maintained during an accepted circuit-switched call can only be re-established if they have not timed-out (Frid, above citations). Therefore, setting a counter upon interruption would allow for the monitoring of time-out conditions for the applications of the packet data connection and enable applications to be maintained and re-established after a longer interruption.

- In regards to Claim 3 and 13,

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched (second) connection to the wireless terminal that covers all limitations of the parent claims.

Frid shows that the network maintains the parameters of the packet data connection (claim 3,13 – message for maintaining the PPP parameters of the packet data connection is set up at the peer – server – to which the terminal is connected) following receiving an acceptance message from the terminal for the circuit-switched connection (Fig. 3, 318-322; Col. 7, lines 32-65; claim 3,13 – sending information about interrupting the packet data connection from the terminal to the network).

- In regards to Claim 6, 7, and 19,

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched (second) connection to the wireless terminal that covers all limitations of the parent claims.⁴

Frid shows that the packet data connection may communicate information between the network and a termination endpoint, such as the Internet or a server on a LAN (Col. 1, lines 27-35; Col. 5, lines 20-30; claim 6,7,19 – network communicates with a LAN/Internet; claim 6,7,19 – packet data connection is between terminal and server in LAN/Internet)

When the circuit-switched connection is accepted and the maintenance of the packet data connection is set up, the maintenance message is received at the termination endpoint (Fig. 3, 318-322; Col. 7, lines 57-65; claim 6,7,19 – network transmits maintenance message to server/Internet).

- In regards to Claim 12,

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched (second) connection to the wireless terminal that covers all limitations of the parent claims.

Frid shows that the terminal is equipped to generate and transmit a message to the network indicating that the packet data connection is to be maintained during a circuit-switched connection (Fig. 3, 318-322; Col. 7, lines 18-55; claim 12 – circuit configured to generate and transmit the message for maintaining the packet data connection).

- In regards to Claim 17,

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched (second) connection to the wireless terminal that covers all limitations of the parent claims.

Frid discloses a terminal that comprises circuitry for processing (processor; claim 17 – terminal comprises a data processor) messages for the retention of a packet data connection for the duration of a circuit-switched connection (Fig. 3, 318-322; Col. 11, lines 6-31; claim 17 – circuit configured to set up message for maintaining the packet data connection are arranged in the data processor).

3. Claims 5, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frid in view of Chen et al. (US006198945B1), hereafter Chen.

- In regards to Claim 5, 15 and 20,

Frid discloses a method, system, terminal, and software implementation for retaining a packet data (first) connection in a wireless system during a circuit-switched (second) connection to the wireless terminal that covers all limitations of the parent claims.

Frid does not explicitly show selecting and adding a telephone number to the message for setting up the circuit-switched connection. Frid also does not show transmitting the maintenance message for the packet data connection after selecting the telephone number but before setting up the circuit-switched connection.

Chen discloses a method and system that enables a mobile terminal to place a first connection on hold while initiating a second connection by selecting a telephone number and adding that number to a message for setting up a second connection (Fig. 3, Col. 6, lines 15-63; claim 5,15,20 – circuit configured to select and add a telephone

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number to message for setting up the second connection; claim 5,15,20 – message maintaining the packet data connection is transmitted after the selection of a telephone number, before setting up the circuit-switched connection)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method, system, and terminal of Frid by selecting a telephone number for setting up the circuit-switched connection before maintaining the packet data connection and setting up the circuit-switched connection, as shown by Chen. This modification would allow a packet data connection to be maintained during either an incoming or an outgoing circuit-switched connection.

Response to Arguments

4. Applicant's arguments filed 1/11/2008 have been fully considered but they are not persuasive.

- In the Remarks on pg. 9 of the Amendment, Applicant contends that Frid does not disclose transmitting a maintenance message before establishing a circuit switched connection. Applicant alleges that this deficiency is admitted by the Examiner on pg. 5 of the Office Action filed 10/11/2007.
- The Examiner respectfully disagrees. As shown in the rejection, Frid discloses message 318 for maintaining a previously established data connection before establishing a voice call (circuit switched connection), at step 326. Contrary to Applicant's assertion, the rejection at pg. 5 of the Office

Action only admits that Frid does not explicitly disclose this message as including a command to reset an application level time-out counter in the server. However, as also shown in the rejection, this limitation is found to be obvious based upon Frid's disclosure of re-establishing applications that have not timed-out upon termination of the circuit-switched call and reactivation of the packet data connection.

- In the Remarks on pg. 10 of the Amendment, Applicant reiterates previous arguments from the submission filed 8/6/2007, contending that Frid does not pertain to solving the same problem as the present application, where Frid deals with re-establishment of the PS bearer and the present application pertains to application-level timeout during an interrupted PS bearer. Applicant contends that it would not be obvious to modify Frid based upon these differences, since Frid admits to the disclosed solution not working for applications that have already timed out.
- The Examiner respectfully disagrees. The main problem addressed in the disclosure of Frid is irrelevant. Frid is shown to meet the limitations of the pending claims regardless of any specific problem being addressed in Frid. Further, the Examiner acknowledges that Frid does not explicitly disclose application level timers. However, as previously shown in the Response to Arguments in the Office Action filed 10/11/2007, Frid acknowledges the reactivation of applications associated with the packet-switched bearer as

long as the applications have not timed-out (See Frid, citations provided in the rejection above). These disclosures in Frid suggest the modification proposed in the rejection, since determination of application time-out would require monitoring for the time-out condition. Further, Applicant's contention that Frid's disclosure of not working for applications that have timed out is also irrelevant. The claimed "resetting of application level time-out counter" is not limited to timers which have already timed out, as implied by Applicant. The contested claim limitation is open to the interpretation taken by the Examiner, that it would be obvious to reset the time-out counters of applications in Frid that have begun counting but not yet reached time-out, such that the applications could be maintained and re-established after a longer interruption. This point has been highlighted in the above rejections in direct response to Applicant's arguments.

Conclusion

5. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B. Sefcheck whose telephone number is 571-272-3098. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregory B Sefcheck/
Examiner, Art Unit 2619
3-27-2008

/Wing F Chan/
Supervisory Patent Examiner, Art
Unit 2619
3/27/08

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